Sacrococcygeal Teratoma: A Case Report with Its Embryological Basis

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Abstract

Teratomas are the tumors which are composed of tissue from all three embryonic germ layers. They may be benign or malignant, and are usually found in the midline. Sacrococcygeal teratoma is a common neoplasm which develop early in fetal life. It usually presents as a large mass extending from sacrum in the neonatal period. Diagnosis of which may be established by prenatal ultrasonography (USG). Perinatal morbidity and mortality are the risks associated with this defect. The present case had a big lump in the sacrococcygeal region. Further investigation including X-ray and USG of the effected region were done to confirm the diagnosis. The anamaly and its developmental basis is reported in this article.

Keywords: Investigations, Sacrococcygeal teratoma, Teratoma

INTRODUCTION

Sacrococcygeal teratoma (SCT) is a tumor that arises from remnants of the primitive streak, which normally degenerates and disappears. It is the most common germ cell tumor of childhood. It is derived from pleuripotent cells of the primitive streak and often contains various types of tissues (e.g. bone, nerve, hair). SCT occurs more commonly in females and usually becomes malignant during infancy (must be surgically removed by age of 6 months).¹ The tumor has been classified based on the location and degree of intrapelvic extension.² It arises from the Hensen’s node which is made up of totipotent primitive cells.³ It has malignant potential which parallels the age of the patient at presentation.⁴ Complete resection of the tumor soon after birth provides an excellent prognosis.⁵,⁶

CASE REPORT

The case came from Department of Obstetrics, District Hospital, Sagar. It was a male child born by vaginal delivery, but with complications at the time of parturition. The neonate died immediately after birth. Complete examination of the case revealed a large mass in the sacrococcygeal region which had solid consistency. No other defect or deformity was reported (Figure 1).

Radiological investigation of the case was done which revealed (Figure 2):
1. Round soft tissue mass
2. With sclerotic material in it attached with an inferior part of the body
3. Rest of the bones are normal.

Ultrasonography (USG) of the Case was Done

On USG, a large heterogeneous predominantly solid mass with areas of cystic changes, heterogeneous echogenicity consistent with fatty changes seen at sacrococcygeal region. There are multiple hyperechoic foci within the mass sign of calcification (Figures 3 and 4).

DISCUSSION

The earliest record of SCT was in the cuneiform tablet of the Babylonian Chaldeans between 625 and 539 BC.³,⁵ This neoplasm has been shrouded in mystery since then. The Chaldeans regarded this protuberance in the new
born infant as an omen of prosperity rather than a medical curiosity.\textsuperscript{5} In certain African cultures, these babies are regarded as monsters, demons and babies from rivers, deities and sexual misconducts and as such a taboo to have such a baby.\textsuperscript{7,8} Such babies are subjected to all forms of inhuman treatment and become victims of infanticide soon after birth.\textsuperscript{7,9} Today, much is known about this interesting tumor. It is known to be a germ cell tumor and considered as a displaced ovum or a \textit{fetus-in-fetu}.\textsuperscript{5}

Remnant of the primitive streak may persist and give rise to SCT. SCT have an incidence of 1 in 35,000. Most effect (80\%) are female.\textsuperscript{10} These tumors may also arise from primordial germ cells that fail to migrate to the gonadal ridge.\textsuperscript{11} Although most of the tumor is usually external with a minimal intrapelvic presacral component, there is a spectrum of tumor distribution and ranges to the extent of being entirely presacral, with no visible external component. As such, a digital rectal examination of a neonate with care to feel the normal presacular space may be an important screening technique.\textsuperscript{12}

\textbf{REFERENCES}

Yadav, et al.: Sacrococcygeal Teratoma: A Case Report with its Embryological Basis


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